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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,194	07/27/2000	Kiyoshi Ozaki	1324.64545	1269

7590 06/19/2002  
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EXAMINER	
NGUYEN, HOAN C	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/627,194

Applicant(s)

OZAKI ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Henley (US5459410A).

In regard to claim 1, Henley discloses (Figs.11-13) a method for repairing a defect in a display having pixel region formed on a substrate comprising the step of:

- irradiating a multi-layer region formed by stacking a plurality of conductive layer with insulation layers interposed with a laser beam to selectively remove only an upper conductive layer or plurality of conductive layers in the vicinity of multi-layer region such that neither inter-layer short-circuit nor short-circuit in a single layer occurs in multi-layer region (column 3, lines 23-34 and lines 52-60).

In regard to claim 2, Henley discloses (Figs. 11-13) a method for repairing a defect in a display having pixel region formed on a substrate comprising the step of:

- irradiating a multi-layer region formed by stacking a plurality of conductive layers with insulation layers interposed with a laser beam to remove said plurality of

conductive layers in said multi-layer region such that no inter-layer short-circuit occurs (column 3, lines 23-34 and lines 52-60).

In regard to claim 3, Henley also discloses (Figs 11b and 12c) a method for repairing a defect comprising the step of:

- forming a bypass for a broken portion of a gate bus line by separating or connecting gate bus line from or a drain electrode or source electrode of TFT, as shown in Fig. 14, a pixel electrode or storage capacitor bus line (column 2, lines 48-43 and abstract)

2. Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Salisbury (US5303074A).

In regard to claim 4, Salisbury discloses (Figs. 1-3) a display having a plurality of bus lines formed in a display area comprising:

- a repair lines 30/31 connectable to a plurality of extraction lines (62/64), for repairing lines breakage that has occurred at an extraction wiring portion (finger connection 62/64) extending between said display area and respective terminals for said plurality of bus lines.

In regard to claim 5, Salisbury discloses (Figs. 1-3) a display having a plurality of bus lines formed in a display area comprising:

- an auxiliary lines  $30_i$  or  $31_j$  ( $i=1-4$ ,  $j=1-2$ ) formed along said bus lines (scanning lines and data lines 14 and 16) in an extraction wiring portion via an insulation film for repairing a line breakage (e.g. 40A) that has occurred at the extraction wiring portion (finger connection 62/64);

wherein a width of auxiliary line is different from a width of said bus lines.

### ***Response to Arguments***

1. Applicant's arguments filed on Feb. 4, 2002 have been fully considered but they are not persuasive.

Applicant's ONLY arguments are follows:

- a. Henley fails to disclose the claimed feature: "selectively remove only an upper conductive layer or plurality of conductive layers in the vicinity of multi-layer region."
- b. Henley fails to disclose the claimed feature: "remove said plurality of conductive layers in said multi-layer region such that no interlayer short circuit occurs."
- c. Henley fails to disclose the claimed feature: "forming a by pass for broken portion of a gate bus line by separating or connecting through local irradiation with a laser beam."
- d. Salisbury fails to disclose features "a repair line connectable to a plurality of extraction lines" and "repair line for repair a lines breakage that has occurred at an extraction wiring portion."

Examiner's responses to Applicants' ONLY arguments are follows:

- a. Henley does disclose an above feature: "for a line to line short, passivation (layer) is removed, then the conductive connection between the adjacent lines (formed by plurality of conductive layers) is cut to remove the short circuit path (short circuit region)" (col. 3 lines 58-60).
- b. As said above, Henley discloses removing the plurality of conductive layers (which form the adjacent lines) in the multiplayer region such that no interlayer short circuit occurs after remove to repair.
- c. Henley discloses in Fig. 11b a feature of forming a by pass for broken portion of a gate bus line by separating or connecting 78 through local irradiation 74/76 with a laser beam.
- d. Salisbury does disclose "a repair lines 30 and 31 connectable to a plurality of extraction lines 62" and "repair line 62 for repair a lines breakage (e.g. 40A) that has occurred at an extraction wiring portion (finger connection 62/64)."

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (703) 306-0472. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SIKES L WILLIAM can be reached on (703) 308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8178 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

chn  
June 11, 2002

  
TOANTON  
PRIMARY EXAMINER